

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing Of Claims:

1.-13. (Cancelled)

14. (New) A simulation system for a computer-implemented simulation and verification of a control system under development, comprising:

an arrangement for performing a plurality of simulation processes with corresponding memory modules and interface modules, wherein the modules include distinct memory locations for inter-module communication.

15. (New) A simulation system according to claim 14, wherein a simulation is performed by running a control system simulation model, the simulation model including a number of sub-models being performed on one of the plurality of modules, respectively.

16. (New) A simulation system according to claim 14, wherein at least some of the modules are dynamically reconfigurable for communication via distinct memory locations.

17. (New) A simulation system according to claim 16, further comprising:

a cross-bar switch for dynamic configuration of the distinct memory locations.

18. (New) A simulation system according to claim 17, wherein the cross-bar switch comprises an interconnection scheme for coordination of the distinct memory locations.

19. (New) A simulation system according to claim 14, further comprising:

a host-target communication interface for connection of the simulation system with a simulation host, an input interface, and an output interface.

20. (New) A simulation system according to claim 14, wherein the modules include at least one output port server for communication interconnection with respective output port service of other modules.

21. (New) A computer-implemented method for simulating and verifying a control system under development by means of a simulation system, comprising:

performing a plurality of simulation processes with corresponding memory modules and interface modules, wherein inter-module communication is performed by copying signal values from one module memory location to another distinct module memory location.

22. (New) A method according to claim 21, wherein communication between modules is achieved by means of a cross-bar switch for dynamic reconfiguration of the distinct memory locations.

23. (New) A method according to claim 22, wherein dynamic reconfiguration of the distinct memory locations is achieved according to an interconnection scheme.

24. (New) A method according to claim 21, wherein inter-module communication is achieved via output port service of the various modules.

25. (New) A computer program provided with program code for carrying out a computer-implemented method for simulating and verifying a control system under development by means of a simulation system, comprising:

performing a plurality of simulation processes with corresponding memory modules and interface modules, wherein inter-module communication is performed by copying signal values from one module memory location to another distinct module memory location according to any one of the claims 8 to 11, once the computer program is run on a computer.

26. (New) A method according to claim 25, wherein the computer program is embodied in a computer program including a computer-readable medium.